

CLAIMS

What is claimed is:

1. In a scribe type marking tool as utilized as a means to etch identifying indicia within a metal piece, said scribe type marking tool including a scribe tool having a scribing tip which is scraped into the work surface having an electrically conductive surface, wherein the improvement comprises:

a workpiece contact probe for providing electrical communication with a metal surface of a workpiece for purposes of provided an isolated, reliable electrical circuit;

a tool contact having an engagement surface for providing physical contact with a marking tool to be engaged with a work piece;

test voltage means for providing electrical potential between said workpiece contact probe and said tool contact though electrical communication between a first conducting means and a second conducting means, respectively;

indicator means in series between said tool contact and said test voltage means in series within said second conducting means, wherein said indicator mean, upon physical contact of said engagement surface with a surface of the metal workpiece to completed a circuit by the electrical communication there between, is thereby engaged;

whereby positive verification of actual engagement of worktool to workpiece is indicated.

2. A positive piece engagement indicator for use with a pin stamping pin impact marking tool comprising:

test voltage means capable of supplying a differential voltage;

workpiece contact probe referenced to one potential of said test voltage

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an impact pin forming the completion of the series circuit with said test voltage means,

a pull-up circuit formed of a primary pull-up resistor and a filtering capacitor for providing a filtered, uninterrupted signal to a latching circuit; and

10 a second resistor providing an opposing input to said latching circuit referenced to the same electrical potential as the metal piece.

3. The positive piece engagement indicator for use with a pin stamping pin impact marking tool of Claim 2, further comprising:

15 reset means to reset the circuit after engagement of the impact pin has been detected.

4. The positive piece engagement indicator for use with a pin stamping pin impact marking tool of Claim 2, wherein said latching circuit includes a

20 CD4044BU Quad NAND R/S Latch in a 16 pin package having four circuits of "D" type latches having common CLOCK input and POLARITY input.

5. The positive piece engagement indicator for use with a pin stamping pin impact marking tool of Claim 4, wherein after engagement of the impact pin for a period longer than 20 milliseconds, an output will be energized and remain so until reset by a reset switch which applies a signal to the second input.

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6. A positive piece engagement indicator for use with a scriber type marking tool comprising:

test voltage means capable of supplying a differential voltage ;

workpiece contact probe for contacting a work surface and referenced to

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one potential of said test voltage means;

a timing circuit having a primary resistor and a primary capacitor to provide an uninterrupted signal to a filtering circuit for providing a primary input that maintains a voltage reference as provided by positive engagement of the scriber type marking tool with the work surface that is not lost for more than 30 consecutive nanoseconds; and

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a primary output that will remain energized and power an indicator means.

7. The positive piece engagement indicator for use with a scriber type marking tool of Claim 6, wherein said inverting circuit comprises a 4049 Hex Inverting Buffer in a 16 pin package, thereby including six inverting buffers with high current output capability suitable for driving TTL or high capacitive loads.

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